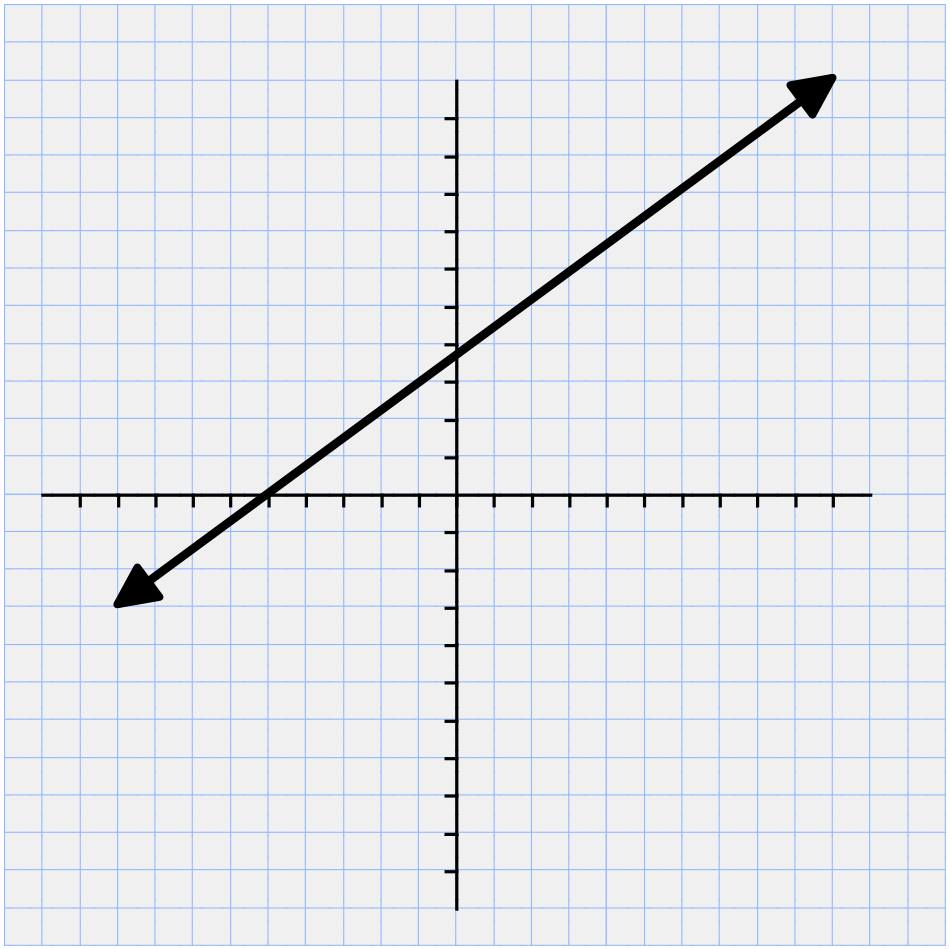
Unit 1 2
Day 3 - Part 1
Finding Domain and Range graphically and algebraically

Give the Domain and range of the function:

D: $(-\infty, \infty)$

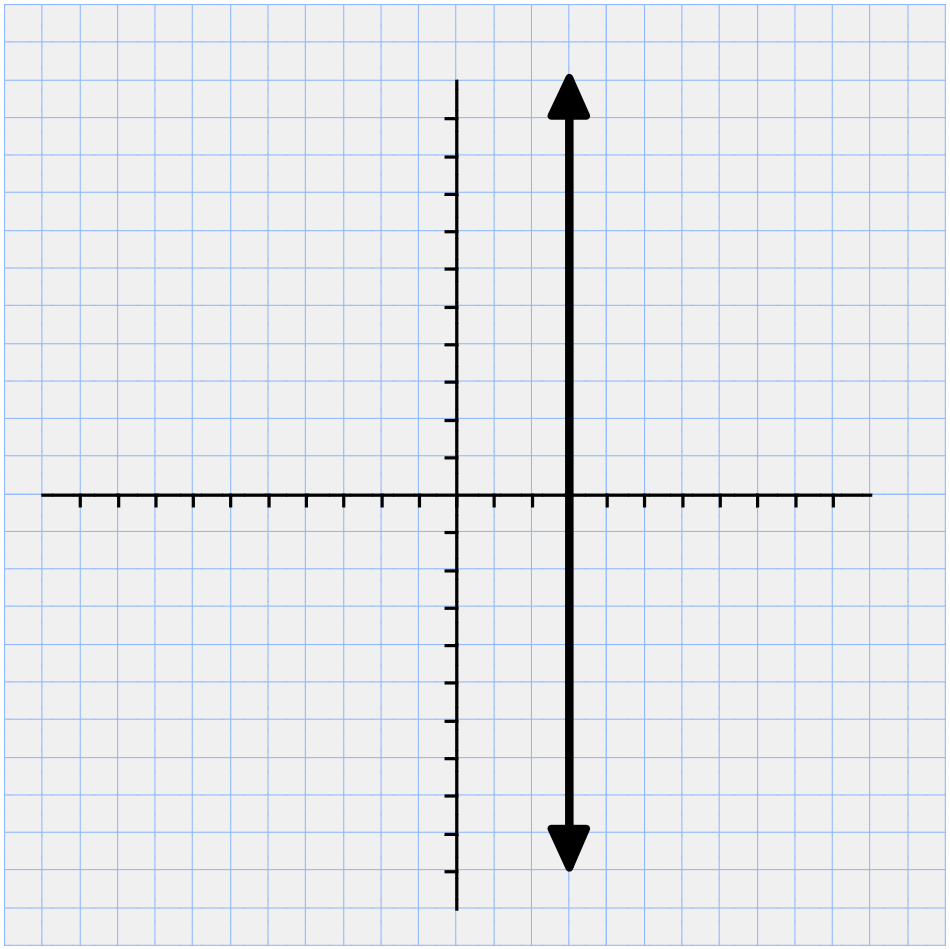
R: $(-\infty, \infty)$



Give the Domain and range of the ~~function~~:

D : $\{3\}$

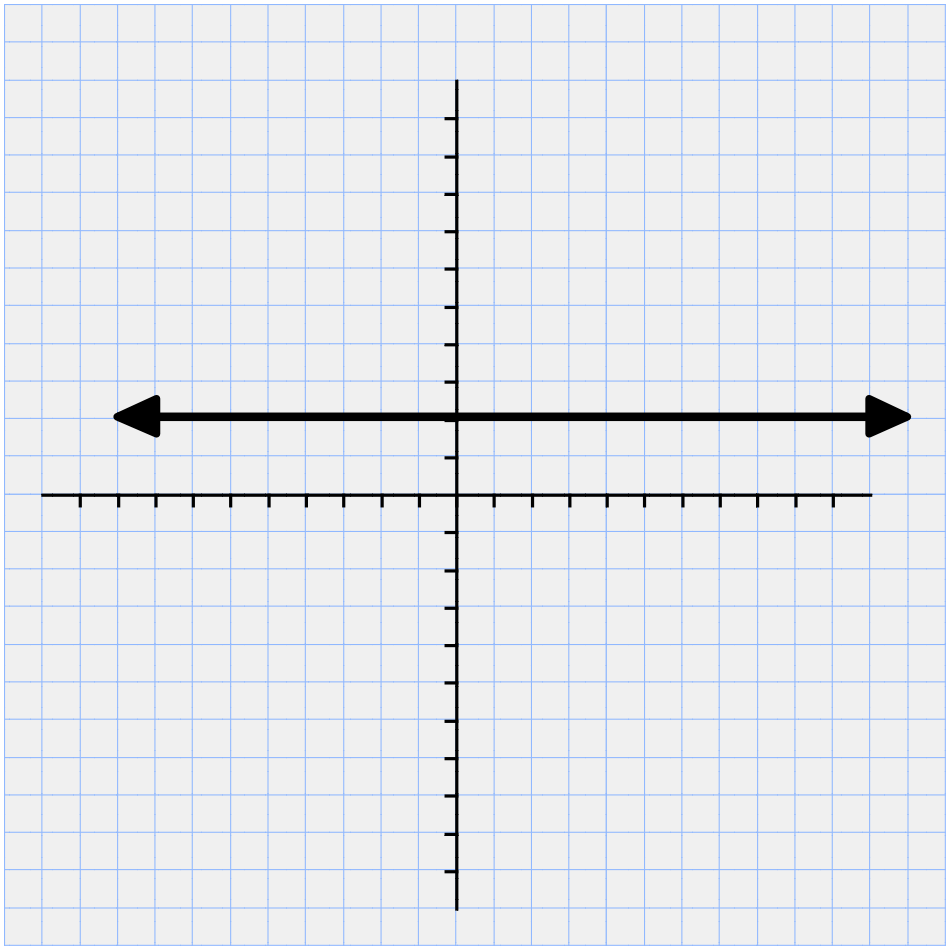
R : $(-\infty, \infty)$



Give the Domain and range of the function:

D : $(-\infty, \infty)$

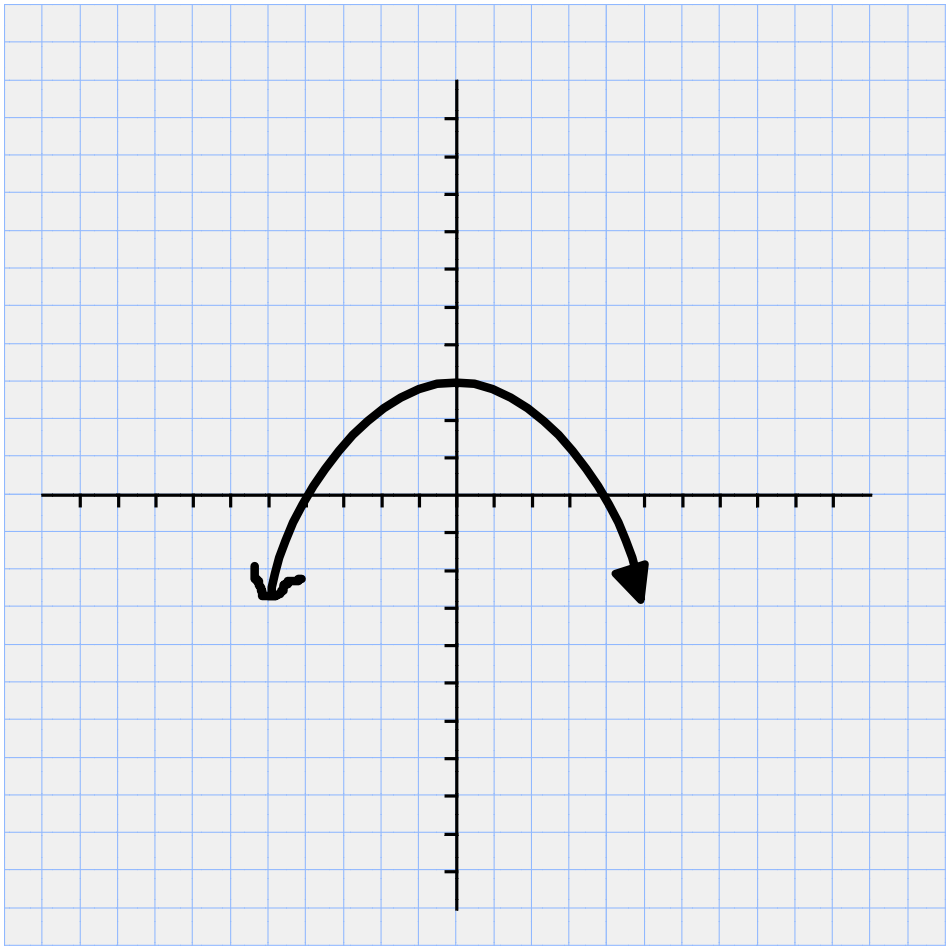
R : $\{2\}$



Give the Domain and range of the function:

D : $(-\infty, \infty)$

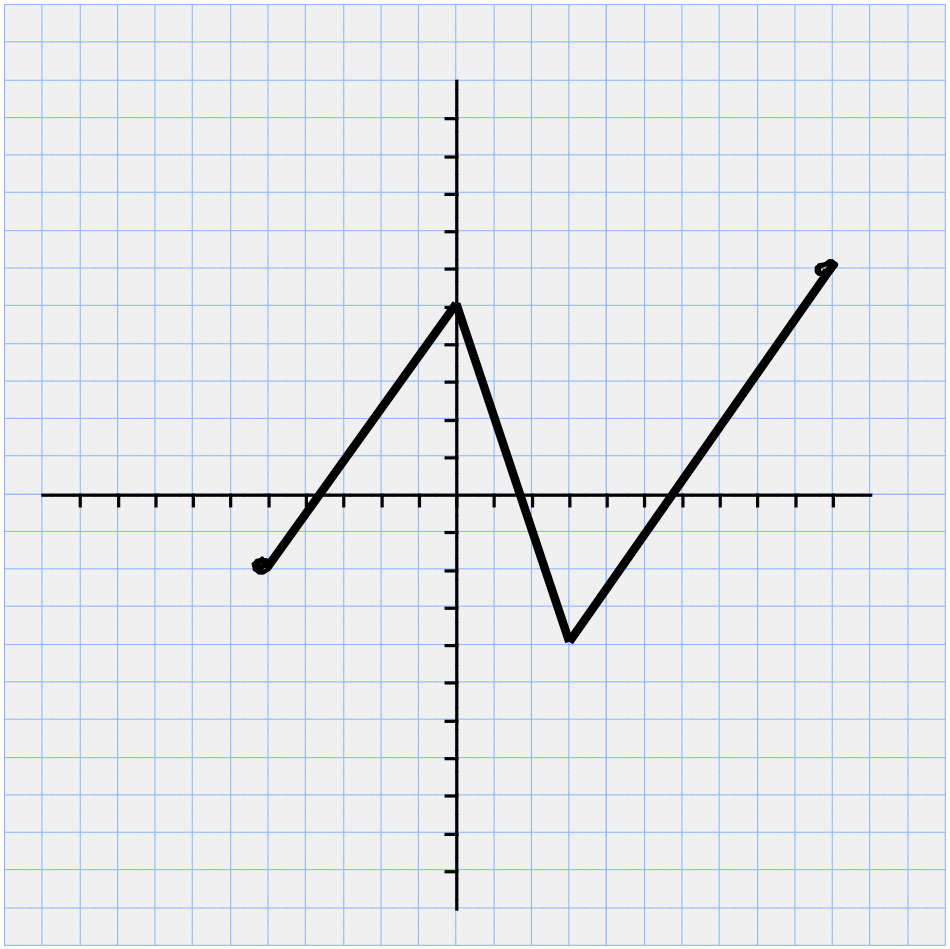
R : $(-\infty, 3]$



Give the Domain and range of the function:

D : [-5, 10]

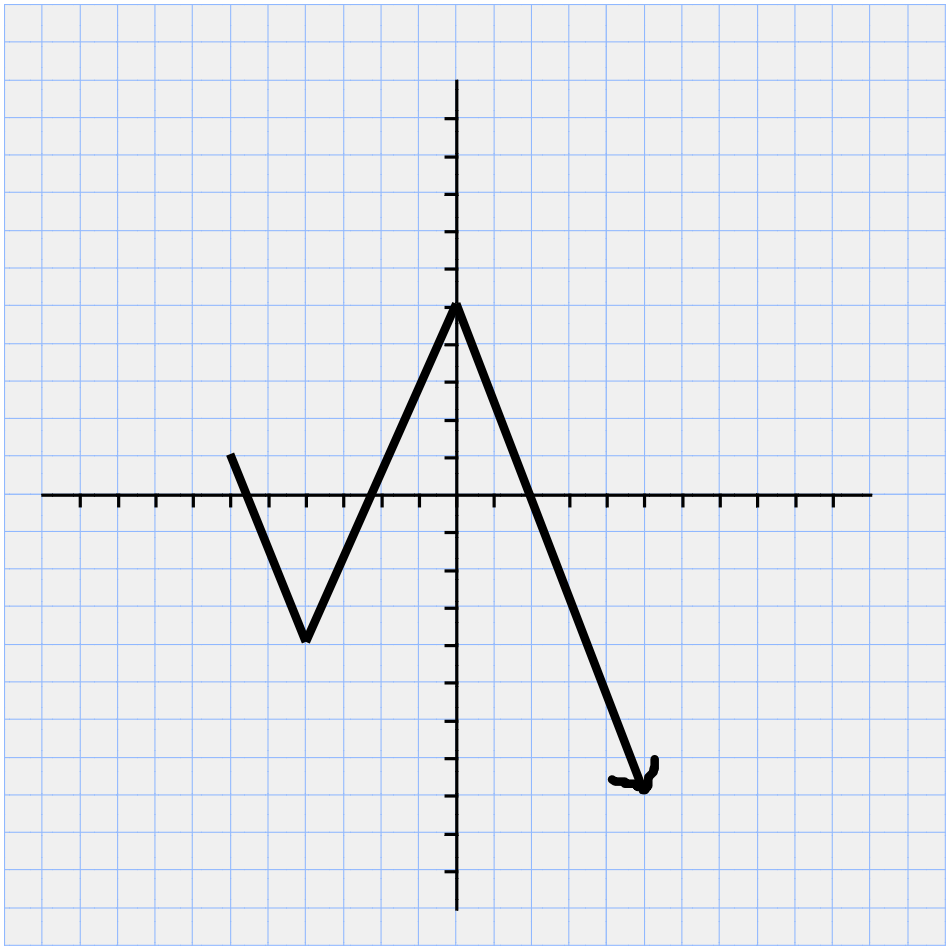
R : [-4, 6]



Give the Domain and range of the function:

D : $[-6, \infty)$

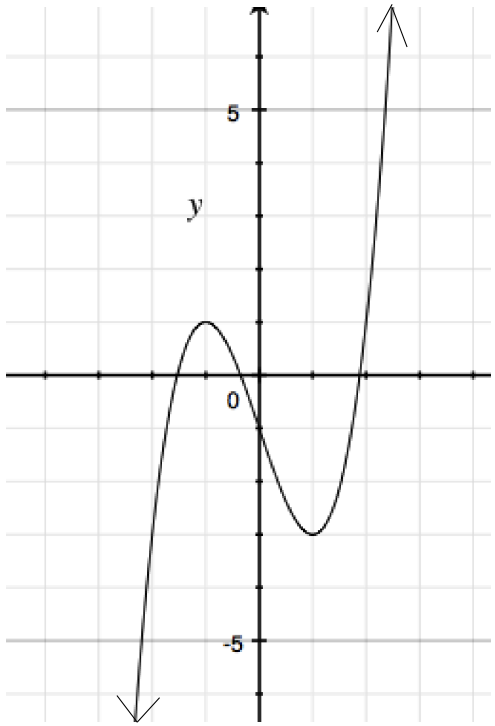
R : $(-\infty, 5]$



Give the Domain and range of the function:

D : $(-\infty, \infty)$

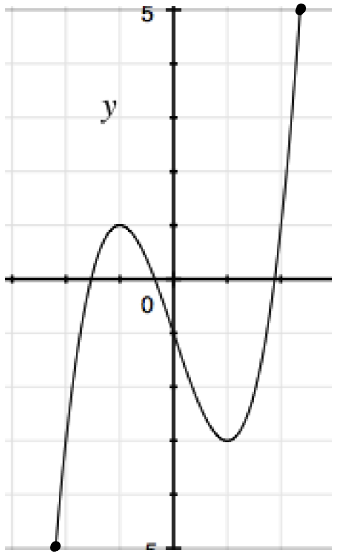
R : $(-\infty, \infty)$



Give the Domain and range of the function:

D : [-2, 2]

R: [-5, 5]



Determine the intervals for which the function is

a) increasing

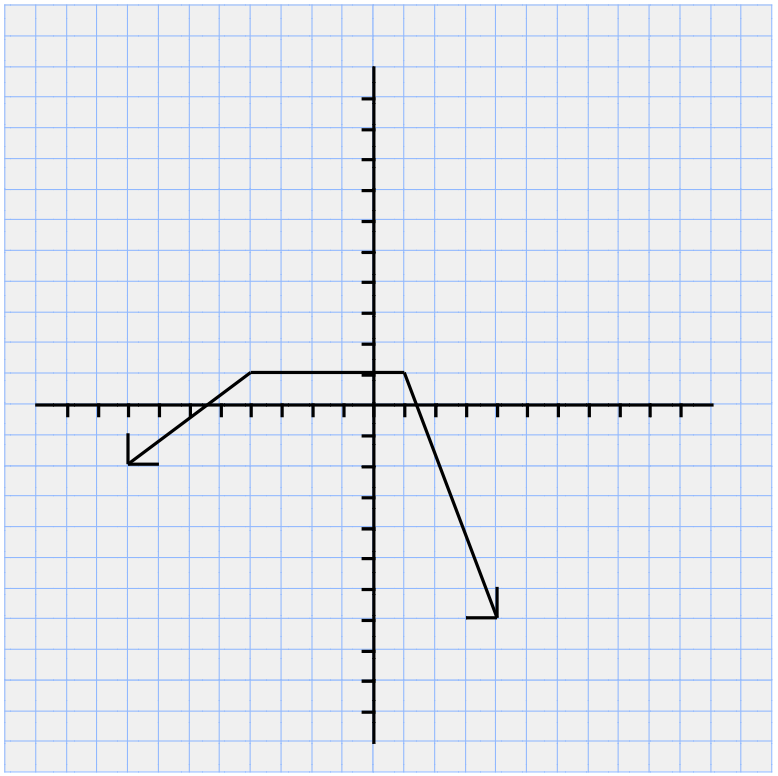
b) decreasing

c) constant

a) $(-\infty, -4]$

b) $[1, \infty)$

c) $[-4, 1]$



Determine the intervals for which the function is

a) increasing

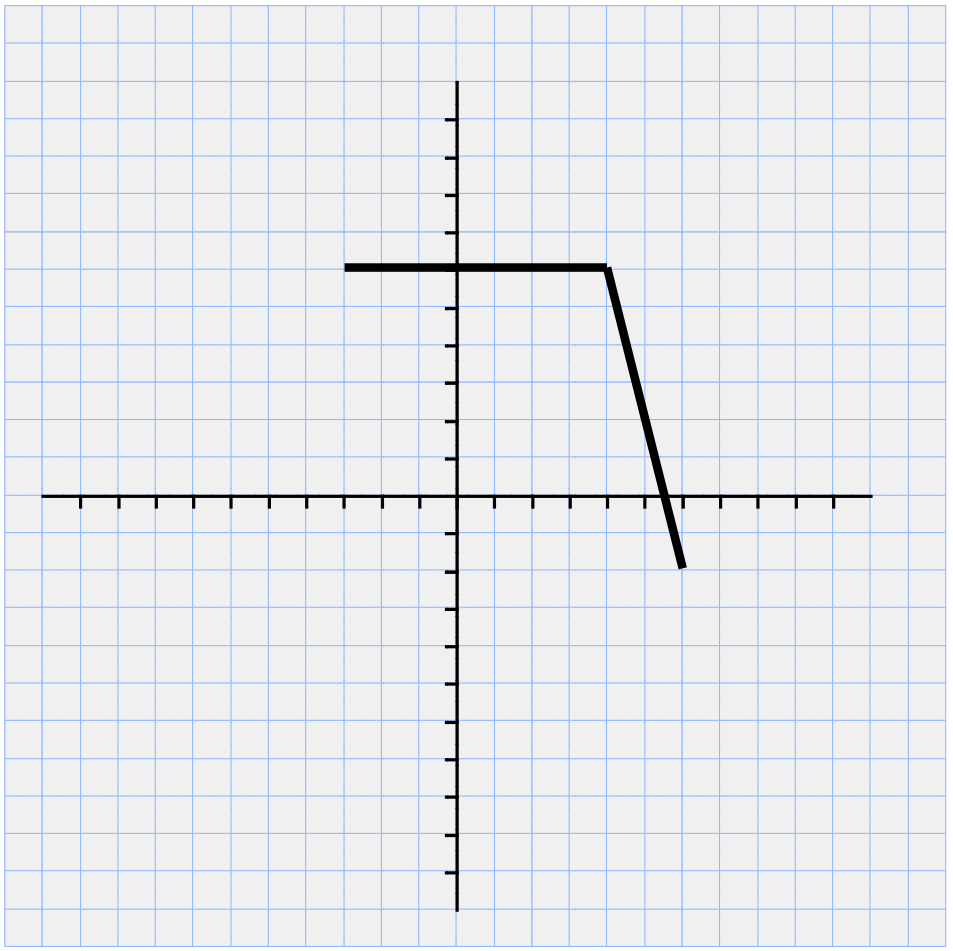
b) decreasing

c) constant

a) None

b) $[4, 6]$

c) $[-3, 4]$



Determine the intervals for which the function is

a) increasing

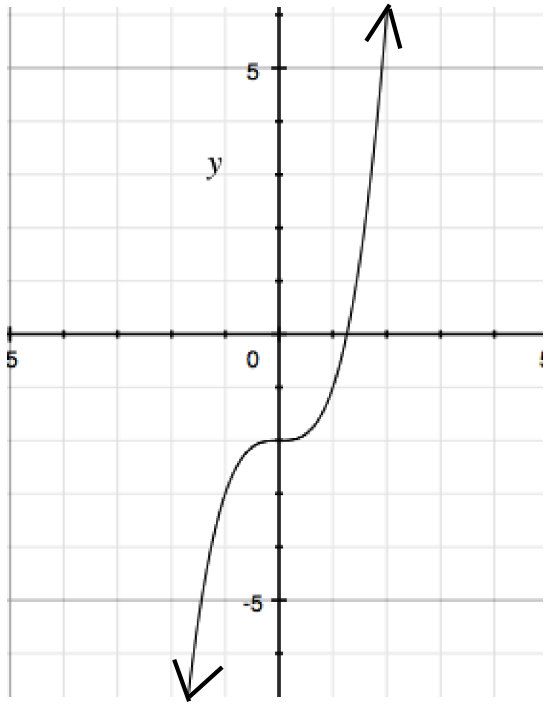
b) decreasing

c) constant

a) $(-\infty, \infty)$

b) none

c) none



Determine the intervals for which the function is

a) increasing

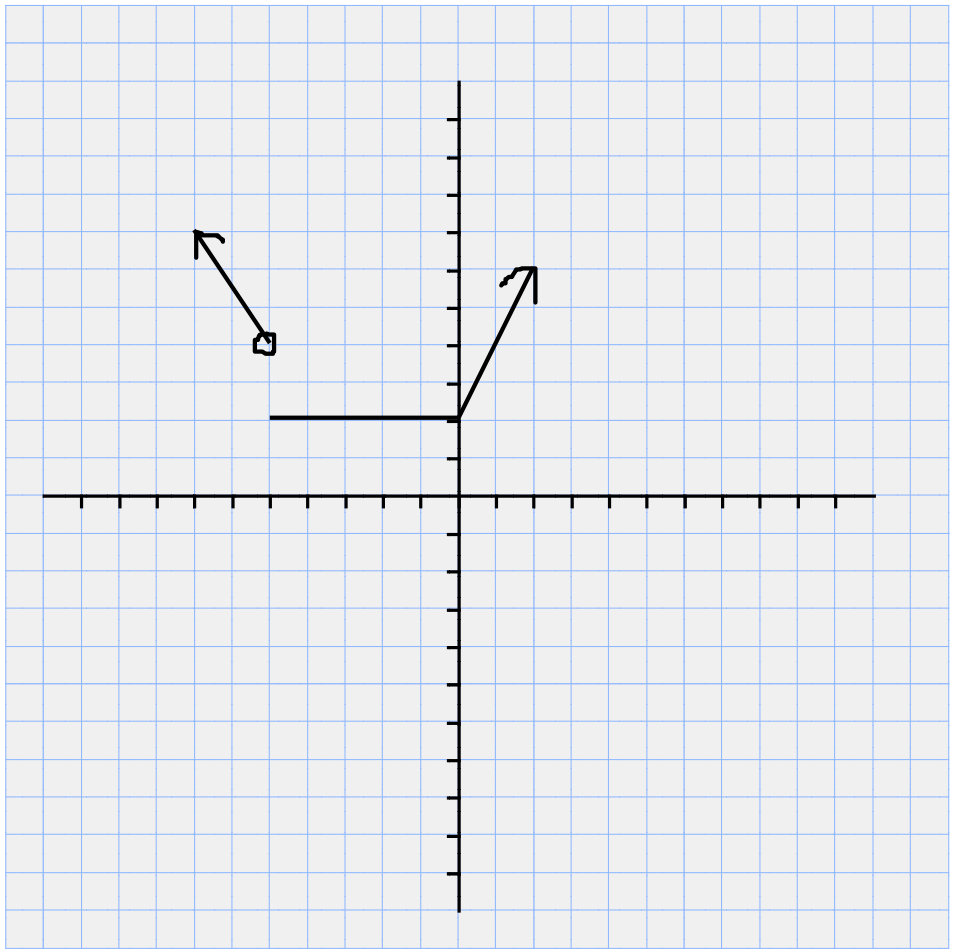
b) decreasing

c) constant

a) $[0, \infty)$

b) $(-\infty, -5)$

c) $[-5, 0]$

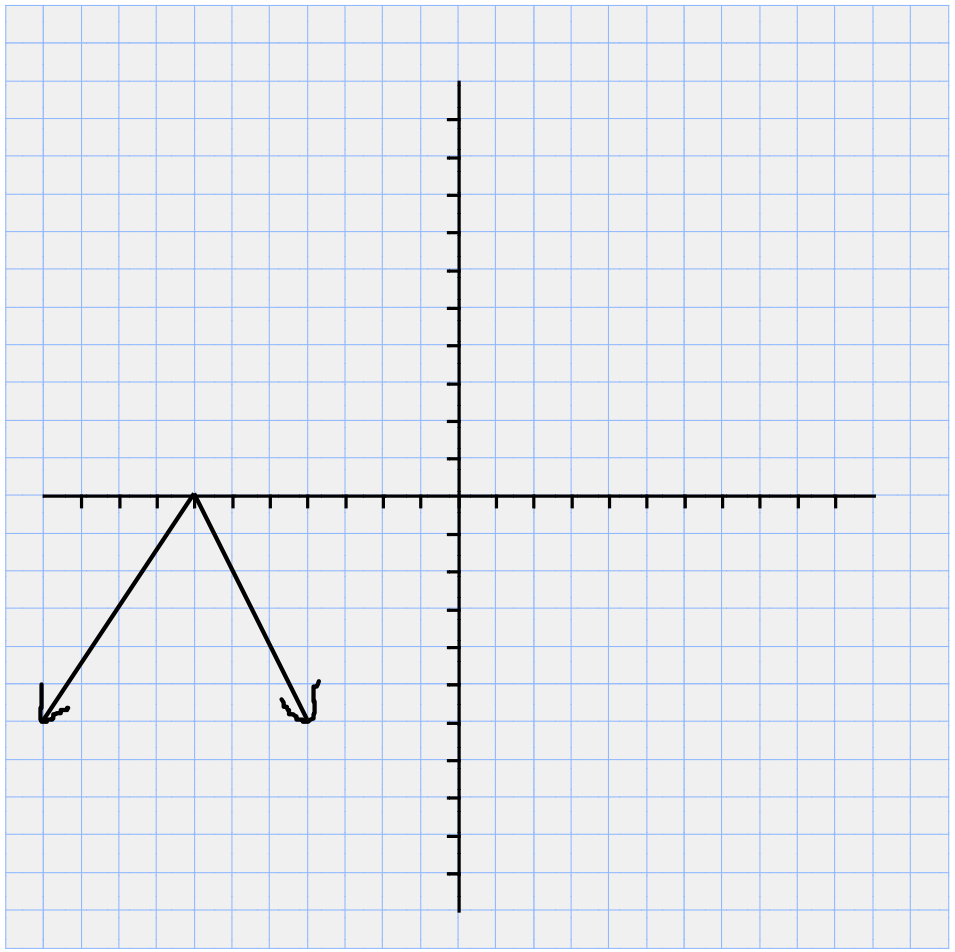


Determine the intervals for which the function is

a) increasing

b) decreasing

c) constant



Find the domain and range of each function ALGEBRAICALLY.

1) $g(x) = -3x + 4$

D : $(-\infty, \infty)$

X : $(-\infty, \infty)$

$-3x$: $(-\infty, \infty)$

$-3x+4$: $(-\infty, \infty)$

R : $(-\infty, \infty)$

2) $f(x) = x^3$

D : $(-\infty, \infty)$

R : $(-\infty, \infty)$

Find the domain and range of each function ALGEBRAICALLY.

3) $f(x)=(x-5)^2$

D: $(-\infty,\infty)$

X: $(-\infty,\infty)$

X−5: $(-\infty,\infty)$

$(X-5)^2$: $[0,\infty)$

R: $[0,\infty)$

4) $f(x)=-\sqrt{4-x}$

$4-X\geq 0$

$-X\geq -4$

$X\leq 4$

D: $(-\infty,4]$

X: $(-\infty,4]$

−X: $[-4,\infty)$

4−X: $[0,\infty)$

$\sqrt{4-X}$: $[0,\infty)$

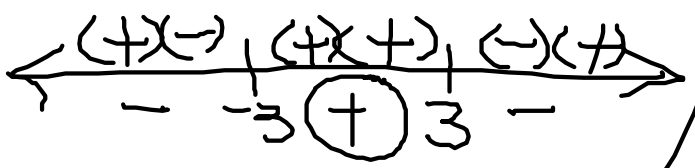
$-\sqrt{4-X}$: $(-\infty,0]$

Find the domain and range of each function ALGEBRAICALLY.

5) $f(x)=\sqrt{9-x^2}$

$9-x^2 \geq 0$

$(3-x)(3+x) \geq 0$



$D: [-3, 3]$

$X: [-3, 3]$

$x^2: [0, 9]$

$-x^2: [-9, 0]$

$9-x^2: [0, 9]$

$\sqrt{9-x^2}: [0, 3]$

$R: [0, 3]$

Homework:

Day 3
p. 192-193: 45-70 (all)
16-30 (even)